

Mail Stop Appeal Brief - Patents
Reply Brief Under 37 C.F.R. § 41.41

PATENT APPLICATION
Attorney Docket No. 2002

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANTS: CAO, Hongie *et al.*
SERIAL NO.: 09/873 505 **GROUP ART UNIT:** 1617
FILED: 4 June 2001 **EXAMINER:** YU, Gina C.
ENTITLED: STARCH-OIL COMPOSITES FOR USE IN PERSONAL CARE APPLICATIONS

CERTIFICATE of TRANSMISSION UNDER 37 C.F.R. § 1.8

I hereby certify that this correspondence is being transmitted via the United States Patent and Trademark Office EFS-Web electronic filing on 7 December 2005.

/David LeCroy/
David P. LeCroy

Mail Stop Appeal Brief - Patents
Commissioner for Patents
Post Office Box 1450
Alexandria, Virginia 22313-1450

REPLY BRIEF UNDER 37 C.F.R. § 41.41

Dear Sir:

In response to the Examiner's Answer mailed from the Office on 7 October 2005, Appellants provide the following reply –

The Examiner states at pp. 3-4 of her Answer that the “Eskins teaches **non-separable** starch-oil compositions . . . which meet the ‘starch encapsulated hydrophobic material’ limitation” (emphasis added), referring to col. 11, lines 60-66 and col. 13, lines 55-63 in support of her position. Firstly, it should be noted that neither col. 11, lines 60-66 nor col. 13, lines 55-63 of Eskins teach this limitation. Col. 11, lines 60-66 simply provide areas of use for the invention of Eskins, while col. 13, lines 55-63 simply exemplifies one method according to Eskins for forming a dispersion of soybean oil in a starch/water solution (10% starch solids in water). Secondly this example that the Examiner directs the Board’s attention to in support of her position clearly does not teach a non-separable starch-oil composition. Instead, Example 2 of Eskins simply illustrates a method for preparing a starch-water-oil dispersion. Contrary to the Examiner’s assertion, it does NOT teach a non-separable starch-oil composition in water to form a stable, aqueous personal care or cosmetic formulation.

In the ‘Summary of the Invention’ this non-separable starch-encapsulated hydrophobic compound in an aqueous formulation is defined as “a formulation in which the starch-encapsulated structure remains essentially intact”. The Summary then states that this is in contrast to typical starch encapsulated materials that separate into starch and the encapsulated material when added to an aqueous solution. Eskins is list in the ‘Background of the Invention’ as exemplary of such a typical starch encapsulated material (*i.e.*, it does not solve the problem cured by the present invention)¹. In contrast to the invention of Eskins, the “structure of the starch-encapsulated hydrophobic compound remains intact in the aqueous solution” (*i.e.*, is **non-separable** as is claimed in independent claims 26, 32, 39 and 46 and therefore their dependent claims). This fundamental distinction is ignored by the Examiner in maintaining her rejection.

The Examiner then refers to other art to find support for other limitations not taught by the primary reference Eskins. However, as previously stated throughout the prosecution of this present application, none of the art, alone or in combination, teach or suggest this one

¹ Eskins is directed towards solving the problem of creating dried jet-cooked starch solutions that readily **redisperse** in water (col. 2, lines 23-26). According to Eskins, this can be accomplished by at least four different methods – (i) a blend of starch, oil and water are jet-cooked together (col. 7, line 60 – col. 8, line 2); (ii) adding and ‘add-back’ stream to the starch/oil/water dispersion before it is cooked (col. 10, lines 29-48); (iii) adding the oil after the starch/water dispersion is cooked (col. 10, lines 49-57); and (iv) redispersing the dried cooked starch in water and then introducing oil under conditions of shear (col. 10, line 63 – col. 11, line). Accordingly, it is clear that Eskins does NOT teach or suggest a cationic starch encapsulated hydrophobic material that is **non-separable** in an aqueous formulation, as is claimed in the present invention.

fundamental and claimed limitation of a cationic starch encapsulated hydrophobic material that is **non-separable** in an aqueous formulation.

For these reasons, as well as those reasons previously provided in Appellants' 22 July 2005 Appeal Brief, it is respectfully submitted that the final rejection of all claims is untenable and should not be sustained. Allowance of the claims is believed to be in order, and such allowance is respectfully requested.

Respectfully submitted,

Dated: 7 December 2005

NATIONAL STARCH AND CHEMICAL COMPANY
10 Finderne Avenue
Bridgewater, New Jersey 08807
Phone 908.685.5433
Fax 908.707.3706

/David LeCroy/

David P. LeCroy
Attorney for Applicants
Reg. No. 37,869